



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/814,903   | 03/30/2004  | Tetsuya Utsumi       | 5000-5157           | 7614             |
| 27123  | 7590        | 10/12/2006           | EXAMINER            |                  |
| MORGAN & FINNEGAN, L.L.P.<br>3 WORLD FINANCIAL CENTER<br>NEW YORK, NY 10281-2101 |             |                      | MONDT, JOHANNES P   |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3663                |                  |

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/814,903

Applicant(s)

UTSUMI ET AL.

Examiner

Johannes P. Mondt

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/31/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/25/06 has been entered.

### ***Response to Amendment***

Amendment filed with said RCE forms the basis for this office action. In said Amendment applicants substantially amended all currently pending, elected claims 1-11 and 15-16 at least through substantial amendment of the independent claims 1 and 10. Comments on Remarks submitted with said Amendment are included below under 'Response to Arguments'.

### ***Information Disclosure Statement***

The examiner has considered the items listed in the Information Disclosure Statement filed 7/31/06. A signed copy of substitute Form PTO-1449 is herewith enclosed.

1. ***Claims 1, 2, 9, 10, 15 and 16*** are rejected under 35 U.S.C. 102(b) as being anticipated by Shirasaki et al (JP 2000231105 A).

*On claim 1: Shirasaki et al teach an area light emitting device capable of being used with a liquid crystal panel 407, the area light emitting device comprising: a transparent*

Art Unit: 3663

or translucent substrate 20/30/412/411/410 (see Figure 1 and English abstract; see [0029] in the computerized translation for evidence that said substrate is transparent or translucent: otherwise light could never penetrate polarization plate 50, the only source of light being the organic EL element 10, see below; and see [0028] for elements 410, 411, and 412); and an area light emitting element 10 (see Figure 1 and English abstract) arranged directly on and supported by the substrate (see Figure 1), wherein the substrate includes a first surface facing the area light emitting element (face of 20 abutting 10; see Figure 1) and a second surface facing away from the area light emitting element (upper face of 410; see Figure 1); the area light emitting element emits light that enters the first surface and exits the second surface (namely the light penetrating 50 (see also Figures 4 and 5); and the second surface includes a recess (centrally placed recess in the upper main surface of 410 in Figure 1 defined by a bottom surface and side surfaces surrounding the entire periphery of the bottom surface) for accommodating the optical member, liquid crystal panel 407 (see computerized translation, paragraph [0026]) in which the optical member changes the characteristics of light emitted by the area light emitting element 10 ( by the very function of a liquid crystal display panel).

*On claim 2:* the recess is positioned substantially at the center of the second surface (see Figure 1).

*On claim 3:* the recess is defined by a bottom surface and side surfaces surrounding the entire periphery of the bottom surface (see Drawing 1).

*On claim 4:* the recess completely accommodates (i.e., “accommodates” meaning “holds”, cf. Merriam-Webster’s Collegiate Dictionary, 10<sup>th</sup> Edition, p. 7) the entire liquid crystal panel 407, because through its boundary, bellow-shaped as it is, motion of the entire liquid crystal panel is inhibited.

*On claim 9:* the area light emitting element by Shirasaki et al is an organic electroluminescence element 10 (see English abstract, final sentence).

*On claim 10:* Shirasaki et al teach an optical device (liquid crystal display device; see title) comprising: an optical member 407 (liquid crystal panel; see computerized translation, paragraph [0026]); and an area light emitting device 10/20/30/412/411/410 including a transparent or translucent substrate 20/30/412/411/410 (see English abstract for retardation plate 20, polarizing plate 30, organic EL element 10 and see [0028] in the computerized translation for elements 410, 411 and 412; see [0029] in the computerized translation for evidence that said substrate is transparent or translucent: otherwise light could never penetrate polarization plate 50, the only source of light being the organic EL element 10, see below), and an area light emitting element, organic EL element 10 (see English abstract) arranged directly on and supported by the substrate (see Figure 1); wherein the substrate includes a first surface facing the area light emitting element (face of 20 abutting 10; see Figure 1) and a second surface facing away from the area light emitting element (upper face of 410; see Figure 1); the area light emitting element emits light that enters the first surface and exits the second surface (namely the light penetrating 50 (see also Figures 4 and 5); and the second surface includes a recess (centrally placed recess in the upper main surface of 410 in

Art Unit: 3663

Figure 1) for accommodating the optical member, liquid crystal panel 407 (see computerized translation, paragraph [0026]) in which the optical member changes the characteristics of light emitted by the area light emitting element 10 ( by the very function of a liquid crystal display panel).

*On claim 11:* the recess completely accommodates (i.e., “accommodates” meaning “holds”, cf. Merriam-Webster’s Collegiate Dictionary, 10<sup>th</sup> Edition, p. 7) the entire liquid crystal panel 407, because through its boundary, bellow-shaped as it is, motion of the entire liquid crystal panel is inhibited.

*On claim 15:* the area light emitting device is an electroluminescence device (organic electroluminescence (EL) device 10; see English abstract) and the optical member is a liquid crystal panel 407 (see paragraph [0026] of the computerized translation).

*On claim 16:* the optical device is a liquid crystal device (see title and English abstract), the optical member is a liquid crystal panel 407, and the area light emitting device is an electroluminescence device 10 (see English abstract).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. ***Claims 5-6*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasaki et al as applied to claim 1 and further in view of Oshitani et al (US 2002/0005824 A1) (see IDS filed 7/31/06).

Art Unit: 3663

As detailed above, claim 1 is anticipated by Shirasaki et al. Shirasaki et al do not necessarily teach the further limitation defined by claim 7 or claim 8. However, it would have been obvious to include the range limitation implied by claim 5 in view of Oshitani et al, who, in a patent of a liquid display device with electroluminescent element (title, abstract), hence analogous art, teach the liquid display panel 103 to have a thickness less than the depth of the recess in which said liquid crystal display panel is kept (Figure 12 and discussion). Furthermore, applicant neither defines the meets and bounds of the vague expression "substantially", which is at least extremely broad so as to encompass both the device by Shirasaki et al and the device by Oshitani et al, nor explains in the specification why the mutually compensating range limitations are critical to the invention.. Applicant is furthermore reminded that a *prima facie* case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art or when the ranges of a claimed composition do not overlap but are close enough such that one skilled in the art would have expected them to have the same properties. In re Peterson, 65 USPQ2d 1379 (CA FC 2003).

3. **Claims 7-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shirasaki et al as applied above to claim 1, in view of Aoki et al (previously cited).

Although Shirasaki et al do not necessarily teach the further limitation defined by claims 7-8, it would also have been obvious to include said further limitation in view of Aoki et al, who, in a patent publication a liquid crystal display ([0001]) (hence analogous art) teach that black matrix sections can be made to reflect light less by positioning said BM sections in recesses of the transparent substrate wherein the bottom surface of the

Art Unit: 3663

recess is a rough surface (see English abstract and Drawing 1). *Motivation* to include the teaching by Aoki et al derives from the resulting improvement by strongly reducing reflected light from the black matrix sections, thus improving the functionality of said black matrix sections as light absorbers. The surface roughness as taught by Aoki et al is in the range of 0.03 – 2  $\mu\text{m}$ . This range overlaps considerably with the range as claimed.

Applicant is reminded with regard to the ranges taught for surface roughness by Aoki et al that it has been held that a *prima facie* case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art or when the ranges of a claimed composition do not overlap but are close enough such that one skilled in the art would have expected them to have the same properties. (In re Peterson, 65 USPQ2d 1379 (CA FC 2003)).

### ***Response to Arguments***

Applicant's arguments filed 9/25/06 have been fully considered but they are not persuasive. In particular, although the rejections over Lear in the previous office action have been overcome by amendment, examiner maintains (see Interview on 9/13/06 and in the Interview Summary mailed 9/15/06) the validity of the interpretation of element 407 as liquid crystal panel because a liquid crystal panel is what is now claimed; this in connexion with the rejections based on Shirasaki et al. Furthermore, counter to applicants' allegation on pages 8 and 9 of Remarks, the substrate as cited (i.e., both previously and now layers 20 and 410 with all layers in between) does not include light emitting element 10 (see Drawing 1) Therefore, the rejections over Shirasaki et al are



Art Unit: 3663

herewith essentially repeated. Finally, Oshitani et al as made of record by applicant in the IDS filed 7/31/06 is deemed pertinent as shown by the rejection included above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P. Mondt whose telephone number is 571-272-1919. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JPM

October 2, 2006

Patent Examiner:



Johannes Mondt (Art Unit: 3663)